REMARKS

Claims 13-14 currently appear in this application. The Office Action of July 12, 2002, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicants respectfully request favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

The specification has been amended to reflect the status of the parent application.

Claims 3-12, the non-elected claims, have now been cancelled.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The Examiner alleges that the term "site-directed molecular antagonist" is only vaguely defined.

This rejection is respectfully traversed. Claim 1 has been rewritten as new claim 13 to claim site-directed molecules that bind to SP22 or functional fragments thereof as defined by peptide sequences of SP22. The specification as filed at page 28, paragraphs 77-78, describes how peptides can be identified which interact with functional SP22 peptides. It is

respectfully submitted that one skilled in the art can readily identify compounds that interact with functional SP22 peptides without undue experimentation.

To determine molecules that interact with SP22 or functional fragments of SP22, random peptide phase display libraries are used to determine what peptides might interact with functions SP22 peptides by competitive displacement of Fab fragments of SP22 antibodies. Once the competitive peptides are identified by amino acid sequence analysis, increased amounts of peptide can be synthesized and used as alternative molecular antagonists to antibodies directed against these functional fragments.

Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-2 are said to be indefinite in that they only describe the SP22 protein by virtue of its name.

This rejection is respectfully traversed. SP22 has now been identified also by its sequence, SEQ ID NO:3. It is respectfully submitted that this sequence should be sufficient to allow one skilled in the art to determine what exactly is meant by SP22. As is well settled, a patentee (or applicant) can be his own lexicographer, as long as the words used are not contrary to generally accepted usage. The protein of interest in the

present invention has been designated "SP22", and it is this protein that is defined by SEQ ID NO:3. It is respectfully submitted that this is a more exact identification of the claimed protein than a recitation of the protein's physical, chemical, or biological characteristics.

One skilled in the art can readily identify functional fragments of SP22 from information provided in the specification as filed at pages 25-28, paragraphs 72-76.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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IN THE SPECIFICATION

Page 1, please amend paragraph [0001.] as follows:

[0001.] The present invention relates to a sperm protein which can be used for evaluating, inhibiting, and/or enhancing male fertility, as well as antibodies to the sperm protein. The present application is a continuation in part of application Serial No. 09/123,492, filed July 28, 1998, **now U.S. Patent No. 6,197,940** ~~**Serial No.**~~ and PCTUS9701725 filed January 29, 1998, which is a continuation in part of application Serial No. 08/592,677, filed January 29, 1996 and now abandoned, both of which are hereby incorporated by reference in the entirety. The present application is based on and claims priority from provisional application No. 60/082,753, filed April 23, 1998.